

WE CLAIM:

1. A data network node processing packets carrying a voice payload comprising:
 - a. a plurality of physical interfaces conveying packets,
 - b. a least one bit mask specification associated with at least one of the plurality of physical interfaces, the bit mask specifying bit values and bit locations within at least one selected portion of at least one of the conveyed packets,
 - c. a bit mask comparator for comparing the selected portion of the at least one of the packets received via the at least one physical interface with the at least one bit mask, to determine whether the received packet carries a voice payload

wherein layer-by-layer decapsulation of packets carrying a voice payload is bypassed to reduce processing overheads at the data network node.

2. A data network node as claimed in claim 1, wherein the bit mask further specifies bit locations of bits making up a context switching header used to convey processing information regarding the conveyed packets.
3. A data network node as claimed in claim 2, wherein the bit locations of the bits making up the context switching header, further specify bit locations of available spare bits within at least one packet header, the use of available spare bits providing a data transport overhead reduction.
4. A data network node as claimed in claim 2, wherein the bit locations of the bits making up the context switching header, specify bit locations within the selected portion of packets.

5. A data network node as claimed in claim 1, wherein the selected portion includes at least one of: the first 64bytes of the packet, the packet header and a packet trailer.
6. A physical network interface conveying packets carrying a voice payload, the physical network interface comprising:
 - a. a least one bit mask specification, the bit mask specifying bit values and bit locations within at least one selected portion of received at least one of the conveyed packets,
 - b. a bit mask comparator for comparing the selected portion of at least one of the packets received, with the at least one bit mask, to determine whether the received packet carries a voice payload

wherein layer-by-layer decapsulation of packets carrying a voice payload is bypassed to reduce processing overheads at the physical network interface.

7. A physical network interface as claimed in claim 6, wherein the bit mask further specifies bit locations of bits making up a context switching header used to convey processing information regarding the conveyed packets.
8. A physical network interface as claimed in claim 7, wherein the bit locations of the bits making up the context switching header, further specify bit locations of available spare bits within at least one packet header, the use of available spare bits providing a data transport overhead reduction.
9. A physical network interface as claimed in claim 7, wherein the bit locations of the bits making up the context switching header, specify bit locations within the selected portion of packets.

10. A physical network interface as claimed in claim 6, wherein the selected portion includes at least one of: the first 64bytes of the packet, the packet header and a packet trailer.

11. A method of selectively processing packets carrying a voice payload comprising the steps of:

- a. buffering a received packet in an input buffer;
- b. comparing at least one selected portion of the packet with a selected bit mask; and
- c. determining whether the packet carries a voice payload

wherein the layer-by-layer decapsulation of packets carrying a voice payload is bypassed to reduce processing overheads.

12. A method as claimed in claim 11, wherein determining whether the packet carries a voice payload, the method further comprises a step of selectively extracting a context switching header, if the packet is in fact carrying a voice payload.

13. A method as claimed in claim 11, wherein subsequent to determining whether the packet carries a voice payload, the method further comprises a step of selectively extracting a voice payload from the packet, if the packet is in fact carrying a voice payload.